

June 28, 2007



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety Administration**

East Building, PHH - 30
1200 New Jersey Avenue, Southeast
Washington, D.C. 20590

DOT-SP 14171
(THIRD REVISION)

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: (See individual authorization letter)
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of Nitrogen, compressed in non-DOT specification fully wrapped carbon fiber reinforced aluminum lined cylinders that are an integral part of a pressure system of a tile repair tool and Shuttle Tile Repair material, classified as a corrosive. The tool is used in the NASA Shuttle Tile Repair Cure In Place Ablator Applicator (CIPAA) Project. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.
 - b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.
 - c. Unless otherwise stated herein, this special permit consists of the special permit authorization letter issued to the grantee together with this document.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

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4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.301a(a) (1) and 175.3 in that a non-DOT specification cylinder is not authorized, § 173.154 in that the 66 pound weight restriction is exceeded, and § 173.301(f) in that the cylinder is not equipped with a pressure relief device.
5. BASIS: This special permit is based on the application of NASA dated June 9, 2005 submitted in accordance with § 107.105 and the public proceeding thereon.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Nitrogen, compressed	2.2	UN1066	N/A
Corrosive liquid, N.O.S. (Gamma-Aminopropyltriethoxysilane)	8	UN1760	II

7. SAFETY CONTROL MEASURES:

a. PACKAGING -

(1) Packaging prescribed for nitrogen is a non-DOT specification fully wrapped carbon fiber reinforced aluminum lined cylinders manufactured and marked by Carleton Technologies, Incorporated in accordance with DOT-SP 11194, except that the cylinder is not equipped with a pressure relief device. The maximum service pressure of the cylinders is 4,500 psig. The cylinders are an integral part of a pressure system of a tile repair tool used in the NASA Shuttle Tile Repair Cure In Place Ablator Applicator (CIPAA) Project. Each CIPAA tool pressure system consists of two manifolded cylinders as shown on drawings on file with the Office of Hazardous Materials Special Permits and Approvals (OHMSPA).

(2) Packaging prescribed for the class 8 material is a metal receptacle as described in the June 8 application and on file with OHMSPA.

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b. TESTING -

(1) The pressure system of the CIPAA tool must be tested to the NASA CIPAA Structural Verification Plan - JSC 49915 prior to first shipment.

(2) Each composite cylinder must be retested in accordance with the requirements of DOT-SP 11194.

c. OPERATIONAL CONTROLS -

(1) The pressurized system must be shipped installed in the CIPAA tool in accordance with the shipping containment plan described by NASA's Johnson Space Center CIPAA Tool Project.

(2) Each CIPAA tool must be shipped in strong outside packagings in accordance with § 173.301(a)(9).

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package or its contents and it is reoffered for transportation in conformance with this special permit and the HMR.

b. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

c. The pressurized system is only authorized for 10 years from the date of manufacture, termination of the Shuttle Program, whichever occurs first.

d. The pressurized system must be used exclusively in the CIPAA tool for the Space Shuttle Program.

e. The CIPAA shipping container must be marked "DOT-SP 14171" on two opposite sides in letters at least 2 inches in height on a contrasting background.

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f. Packagings permanently marked 'DOT-E 14171', prior to October 1, 2007 may continue to be used under this special permit for the remaining service life of the packaging or until the special permit is no longer valid. Packagings marked on or after October 1, 2007 must be marked 'DOT-SP 14172'.

g. Shipping papers displaying 'DOT-E 14171' may continue to be used until October 1, 2007, provided the special permit remains valid.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, cargo aircraft only, and passenger-carrying aircraft.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each aircraft or motor vehicle used to transport packages covered by this special permit. The shipper must furnish a current copy of this special permit to the air carrier before or at the time the shipment is tendered.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
 - o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
 - o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
 - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

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Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)- 'The Hazardous Materials Safety and Security Reauthorization Act of 2005' (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term 'exemption' to 'special permit' and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for Bob Richard
Deputy Associate Administrator
for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration, Department of Transportation, Washington, D.C. 20590. Attention: PHH-31.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: sln